

Deep Space 1 Mission Overview

David H. Lehman, Project Manager
Deep Space 1
Jet Propulsion Laboratory
Pasadena, California

Deep Space 1 (DS1), launched on October 24, 1998, is the first mission of NASA's New Millennium program. This program is chartered to flight validate high-risk, advanced technologies important for future space and Earth science programs. Twelve advanced technologies were chosen for validation on DS1. These include solar electric propulsion, high-power solar concentrator arrays, autonomous on-board optical navigation, two low-mass science instrument packages, and several telecommunications and micro-electronics devices. The encounter of the DS1 spacecraft with the asteroid Braille on July 29, 1999 represented the conclusion of the technology validation phase of the mission and the first encounter of the spacecraft with a deep space target. The validation of technologies has been completed. The presentation will describe the mission, science and technology objectives and results to date, and future plans for the project.